

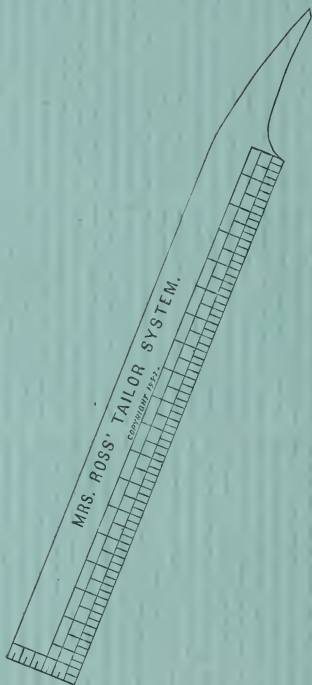
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THE ROSS
TAILOR SYSTEM
OF
GARMENT CUTTING
BY
ACTUAL MEASUREMENTS.

SECOND EDITION.


MRS. H. A. ROSS, Inventor.

BATTLE CREEK, MICH.
WM. C. GAGE & SON, PRINTERS.
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PREFACE.

SINCE the first edition of Mrs. Ross' Tailor System, in 1882, it has been tested thoroughly, and wherever introduced, has at once been fully appreciated, and, in the hands of intelligent painstaking women, has gained a decided victory over the worthless, inaccurate, and misleading methods so common in every community. From among so many cutting systems, it is very difficult for the uninitiated to make a selection. Every chart vender makes his method appear to be the only perfect one, and a few explanations will not be amiss here.

It is of no consequence, except for durability, of what material a cutting method is composed, nor how quickly it will draft the garment. It is of no merit *merely* because composed of wood, or of tin, or of pasteboard. It is no recommendation that is quickly learned. Every method based upon the laws of proportion is valueless, and must ever be, as the measurements of the female form do not increase and decrease in any ratio or proportion. Only an actual measurement system can give satisfaction, and in every case the garment, when cut, must agree in measure with the form for which it is drafted. In the Ross System, the measures are applied directly to the garment, and no mistake is possible if instructions are followed. The System as revised is much more easily understood, and the lessons easily learned, if the pupil will be patient, and pass over nothing until it is fully comprehended. We urge it upon all. Be accurate, not merely for your success in business, but for the sake of your sex. The incapacity of the female mind for accuracy is a standing argument against the equality of the sexes. Hoping the Ross System may benefit and encourage those real and unwritten heroines—the dressmakers,

I remain respectfully yours,

Mrs. H. A. ROSS.

Battle Creek, Mich., Aug. 1, 1887.

LESSON I.

THE CUTTING RULE.

The rule must first be studied, and the inches, half inches, quarters and eighths agreeing with the tape-line must be understood. The inch scale, 1, 2, 3, etc., is used in drafting length of front, back, and under arm as well as for sleeve drafting.

The figures on middle row, at the half inches, are used in drafting chest and shoulder lines, and also to divide the figures on the quarter inches on the edge of rule. Thus, to divide any line, measure it by the half-inch scale, and the corresponding figure in the scale below it at quarter inches will be the middle of the line. The quarter-inch scale is the Round Scale, used in drafting the measures which are taken entirely around the body, hips, waist and bust. The square end is figured at the quarter inches, and is the neck scale, numbered 9, 10, 11, 12, 13, 14. The end opposite the square end is the Pointed End, and contains neck and armscye curves, round form curve and Dart rule. Observe the location of D. T. S. (tops of darts), and also find stars at fig. 9 on inch scale and on Square End. Find X and B on face of rule, and A on back of rule.

In drafting hold rule with Round Scale towards front edge of paper. Do not mark by the plain edge. To assist the learner in distinguishing the numbers referring to Rule from diagram, we have "Pointed End," "Inch Scale," etc., capitalized. The numbers in brackets () refer to dots to be made in drafting.

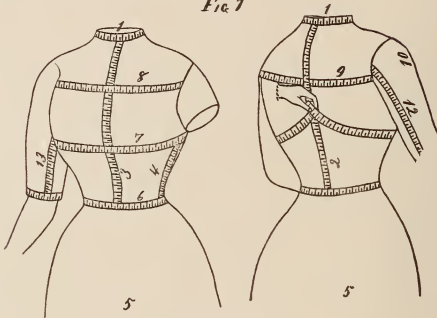
LESSON II.

THE DRAFTING PAPER.

The best quality of drafting paper is light manilla, No. 1, size 24x36, and can be purchased at a paper warehouse or of druggists. This quality is preferable to the

plain newspaper sold at printing houses, as the latter is very easily torn. Under no circumstances use printed papers, or wrinkled and uneven ones.

Fig 1



LESSON III.

TAKING THE MEASUREMENTS.

SEE FIG. 1.

In using the Ross Tailor System it is of the utmost importance that the measures be taken correctly, as they are to represent the form to be fitted, and deviation from the rules will result unfavorably. Give your undivided attention to this lesson, study fig. 1 carefully, and you will be amply repaid by obtaining most gratifying results.

1. Learn to repeat the names of the measures in rotation.
2. Write the measures in their proper place in measure book.

The measures here given are for a well proportioned, medium sized form, and are only used as a guide for beginners.

Name..... Date.....

Style.....

Neck 13, length of back 16, length front 14, u. arm 9, hips 39, waist 24, bust 36, chest 12, width shoulders 13. Sleeve,—length 23, wrist to elbow $9\frac{1}{2}$, elbow to form 11, elbow to arm 9; length of skirt, front—, back—.

3. The belt furnished with system is to be passed around the waist tight, and its lower edge outlines the

waist line, upon which the other measures are built.

1 *Neck Measure*.—Pass tape-line around the neck, low down, and under the collar.

2 *Length of Back*.—This measure greatly controls the waist, and it must be taken carefully. Hold tape at neck above the prominent bone, and measure to the edge of belt, or waist line.

3 *Length of Front*.—Measure from throat to waist line; do not take it higher than necessary. It should be at least two inches less than the length of back.

4 *Length under Arm*.—Hold a lead pencil across the armpit, under the arm, pushing up as high as possible while the arm hangs naturally at the side, and measure from pencil to waist line.

5 *Hips*.—If no bustle is worn, pass the measure around the body over the dress, taking a snug measure. If it cannot be taken accurately, suppose the hip size to be three inches larger than the bust measure. This, although inaccurate, is better than a measure taken over a very full tournure.

6 *Waist*.—Take the waist measure under the dress waist next to the corset if possible, and always take it tight, we do not mean an “easy measure,” but a very tight one. The dress goods will stretch in trying on, while the tape-line will not.

7 *Bust*.—Take bust measure, measuring entirely around the body, close under the arms, bringing the tape-line over the fullest part of bust in front. Take the measure as tight as can be without compressing the form, as we add a trifle to this line in drafting, giving looseness enough.

8 *Chest*.—Take measure across front of waist, between front armscyes, the arms hanging at the side.

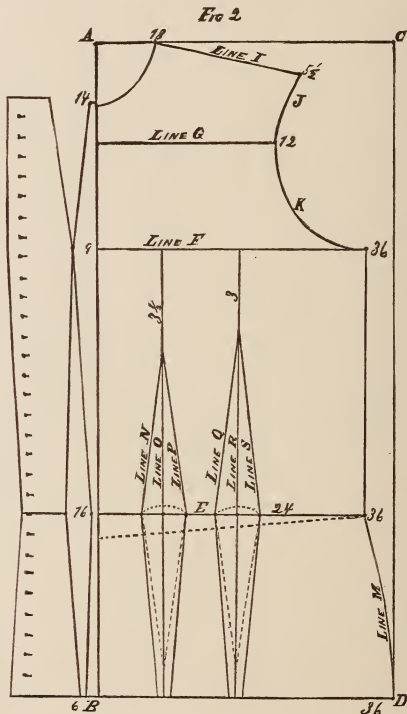
9 *Shoulders*.—Throw the shoulders well back and measure across between armscyes. Do not measure wider than necessary.

10 *Sleeve*.—Hold tape at the very top of shoulder, and holding arm at the side very slightly bent, measure from height of arm to wrist bone. Next measure from wrist bone to elbow, then elbow to the side form of waist, following the sleeve seam; lastly, hold the arm outstretched and measure from elbow to arm-pit.

Skirt.—Take measure, front and back, from waist line to floor, except for children's clothes.

Measure for a Yoke.—Pass a belt around the body close under the arms, measure neck, back and front to bust line, width of chest and shoulders.

For Children.—Take measure for yoke, and if the garment is to reach the floor, or not, it is better to measure from yoke to floor, then deduct from length as much as it is too long. Always omit waist and hip measures in drafting for very young children, as the garment should slant out wider from bust line to hem.



LESSON IV.

DRAFTING FRONT OF BASQUE.

SEE FIG. 2.

NOTE:—Pointed dots (<) are more easily seen, and are preferable to plain ones.

1. Place the rule one inch back from top and front edges of the drafting paper; draw a line across Square End and the length of the rule; dot at neck size 13 on square end, and dot at length of back, 16, without moving the rule. Letter the lines as fast as made to correspond with the illustration. 2. Number the dots. Hold rule in same position and move downwards until the length of front, 14, reaches the waist line, (16), and dot at the top of the rule. 3. Move rule down again in a like manner until length under arm, (9), reaches waist line, dot at the top of the rule. 4. Complete line A B to six inches below the waist, and placing rule at angles with the line at (6), draw straight line across to hip size, add one inch to this line, which is afterwards taken out in darts. In drawing the cross lines, the square end of rule must be exactly square with line A B. 5. Move rule upward in the same position to the waist line, (16) draw straight line across and dot at both WAIST and BUST, sizes 24 and 36 on rule. 6. The number of inches between these dots indicates the amount of cloth to be sewed in dart seams. Write the number below the dot. The darts are not drafted until the pupil becomes familiar with the outlines. 7. Move rule upward until it reaches high under arm dot, (9), and draw straight line across to bust measure on rule. 8. At half way between bust and neck, draw chest line across, square with line A B, at this central line (line G), dot at chest measure on Middle Scale.

9. The shape of the front shoulders is found to be difficult to remember, and especial attention is called to the diagram. Hold rule straight with line A B, square end towards C. Place 9 (triple stars on rule) at the neck size on paper, (13.) Now, without moving rule, dot at triple stars on the square end. This shoulder is $3\frac{1}{2}$ inches too long for medium measures, and should be marked short enough to fit the back (after the back draft is

made). Draw line I between the dots at shoulder and neck.

10. Draw neck curve from (13) to (14) by placing A on plain side of rule, at (14). 11. Draw upper half of armseye, line J, by placing point of rule at length of shoulder, ($5\frac{1}{2}$), and draw line to chest line, (12). For lower half of armseye, place X, on rule, at (36) and draw line to join line J, at (12). 12. Place B, on rule, at extremity of bust line, (36), and draw line to bust dot on waist line. The waist and bust lines are always of an equal length. Do not make the mistake of drawing under arm line from (36), bust line, to (24), waist line, as this space is taken up in dart seams. 13. Turn rule over, and placing point at waist line (36), draw line to hip measure, (38). 14. The waist, as now outlined, makes no allowance for seams nor for lap on the fronts. Every dressmaker can testify that it is better for each one to leave seams to suit themselves. We only insist that the waist, when done, shall agree in every part with the draft.

We will now draft the French front, which allows $\frac{1}{4}$ inch lap for buttons and buttonholes. Make a dot $\frac{1}{4}$ inch from neck, (14), and a dot $\frac{3}{4}$ of an inch from bust line, a dot $\frac{1}{4}$ of an inch from waist, (16), a dot $\frac{3}{4}$ of an inch from hip, 6; draw straight lines to meet these dots, forming curving front. 15. The darts must now be drawn. The fig. 2 shows the waist. 24, and bust, 36, the difference in inches is 3, and this amount we divide in two darts of equal size, $1\frac{1}{2}$ inches. When any difficulty is experienced in dividing the dart space, dot between (24) and (36) as near the middle as you can, and measure each half. If they are not exactly of even width it is of no consequence, but the wider dart should be placed nearest the front. 16. In small and medium measures the first dart is drawn one and one-half inches back of line A B at waist; this space is increased in proportion to the waist. In measuring a 30 inch waist, place first dot $1\frac{3}{4}$ inches from (16); in 34 waist place first dot 2 inches from (16); and for larger measures make the space $2\frac{1}{2}$ inches. The darts will greatly vary in different measures, and the principles of drafting them must be understood, or it will be useless to attempt to draft them. Study fig. 2 carefully. 17. Begin to space the darts thus: measure one and one-half inches from waist dot, (16), and dot

plainly, then measure the amount required for first dart, one and one-half inches, leave a space of $\frac{7}{8}$ of an inch between dart spaces, and then dot for the rear dart, one and one-half inches. Mark a circling line (\smile) over each dart space, dot in the middle of each and draw lines O and R through the centre of each dart. Hold the square end of rule even with bust line to draw these lines, and dot at $3\frac{1}{2}$ inches from bust line for HEIGHT OF FIRST DART, and 3 inches from bust line for height of second dart. Place D T S on rule at these dots, ($3\frac{1}{2}$) and (3), and draw curve lines, N and Q, then reverse the rule and make the lines P and S, the mark — on plain side at top of dart. Be careful and do not get the dart lines curved OUT on one side and IN on the other; look at the diagram and observe the darts slant outward from top to waist line. On each side of lines O and R, at hip line, mark off one-fourth inch, draw straight lines from darts at waist line through these dots, thus completing the darts. Dotted lines on fig. 2 show the manner of drafting darts below the waist line; for fleshy ladies who require it, these lines are formed by placing the D T S on rule at dart dots and drawing lines curving IN toward the middle lines.

18. After the draft is complete, go over your work with rule and see that you have made no mistake. Prove your work, and if any mistake is found a new draft must be made. Every draft should be thus tested, as even after the most careful study, mistakes frequently occur, and the system would be condemned at once, should the garment fail to fit, when the fault lay wholly in the drafting.

19. The double-breasted front, shown on fig. 2, is readily understood to be the exact counterpart of the French front, and is joined the entire length in a seam to the front. It is not necessary to have this lap extend from neck to hip, but can be cut any desired length or shape, but the *front lines* must curve in at waist, exactly alike. In making, the centre front lines are lapped one-fourth of an inch, and the buttons sewed on from marks made through the buttonholes. 20. In cutting out the pattern, cut on lines exactly, but if the draft is made on lining, as is usual, seams must be allowed at shoulder, under arm, and a hem for the fronts.

as fast as they are made. Dot at neck, (10), length of back, (16). 2. Move rule downward until under arm length reaches waist, (16), and dot at the top of rule, (9.) 3. Complete line A B to six inches below the waist, and dot, (6). 4. Divide the line A B between A and bust dot, as for front, giving the location for width of shoulders. 5. Begin at hip to draw the round measures, dot at hip measure on rule, holding square end straight on line A B. 6. Move rule to waist dot, draw a straight line across but do not dot at waist size. Make a dot one inch from (16) on waist line (see diagram), and from this point draw a line to neck A, and then a slanting line from waist to bottom of basque. This is the centre back seam, and from it all the round measures must be measured, but the rule must be held even with line A B in drawing the lines or they will not be square. 7. From the inch dot on waist line mark off the waist measure, (24.) Sub-divide this line into three spaces, the centre back the narrowest. In measures from 22 to 26, make the first space, *centre back*, one and one-half inches, space for side form from one and three-fourths to two inches, leaving the portion remaining for under arm piece, which should measure as much, or more, than either of the others. These spaces are to be increased in proportion to the waist measure. 8. Move rule to height under arm, (9), and draw straight line across (see line E). Move rule to slanting line in centre of back, and mark at the bust measure on round scale. The round seam crosses the bust line exactly in the middle, so dot at the middle of the line before removing rule. 9. Draw width of shoulders, (12), on middle scale, at the dot on line A B (see line F).

10. To form shoulders, place D T S at neck, (10), and draw a line to extremity of shoulder line, (12). Hold the rule face up.

11. Armscye is formed with neck curve on rule; place X at bust line, (36). Under arm line is drawn from B, on rule at (36), to waist dot, (24). 12. Turn rule over, place point at waist, (24), and draw to hip measure, (39). 13. Draw a line across back of neck, taking out $\frac{3}{8}$ inch in centre of back.

14. Round form.—Place Point at the middle dot on bust line, and draw curved line to waist line at first dot. Move rule point to armscye, lap dart rule on the

line just formed, in such a manner that the lines thus joined will form one smooth circle, avoiding an angle; make the line H. 15. Line I is drawn by dart rule. Place Point at armseye, one and one-fourth inches from the line H, and draw a line to dot 2 on waist. Mark small darts on these seams, as shown in fig. 3, taking out altogether half an inch. Do not omit this, it does not alter the measures, but makes the back armseye fit more snug. The gore, or dart, is cut away in cutting out the pattern, tapering from armseye to bust line. 16. Complete skirt of centre back by making dot on hip line three inches from centre, 6; double the width at the hip, as at the waist, is a good rule for centre back. From the 2nd dot on waist, draw line to hip, forming a V, thus destroying the skirt of side form, which must be drafted on a separate piece of paper, in this manner: 17. Double a piece of drafting paper, $6\frac{1}{2}$ inches in length, the folded edge to be the centre when cut. At upper edge mark a line one-half the width of the side form at waist, $\frac{3}{4}$ inch; at bottom of paper mark the width of side form, $1\frac{1}{2}$ inches, draw a straight line between these lines, cut on the lines, unfold and pin to the side form. When drafting for basques with pleated backs, it is needless to draft the skirt portion, as the pleats give the shape and fullness.

18. In cutting out the pattern cut exactly on the lines, and after cutting lines I, J, G and H, trim off a trifle of the pattern between bust and waist, as dotted on fig. 3. Trim off one-eighth of an inch at the deepest part. Do not omit to do this, or the garment will lack the fine fit so desirable. Cut away line A B and the V on side form below waist.

2. Form diagram, A B C D, lines A B and C D, to be the length of arm (23), and the lines A C and B D to be the length of the bust measure on the rule. (36). —Letter the lines and number the dots. 2. Place rule lengthwise on line C D, the stars on the square end touching dot D, dot at fig. 2 on rule (see 2 on diagram).

3. Draw a line five inches long from dot 2 to the line B D, fig. 5, on rule intersecting the line (1) and forming wrist line.

4. Draw a line parallel with line A B, through the lower portion of draft (see line P T), two inches inside of line A B.

5. Place square end at 1, and measure the length from wrist to elbow $9\frac{1}{2}$ inches, this line to meet line P T (dot 3), then draw it with the dart rule D T S at elbow.

6. Hold square end of rule at line P T and draw straight line across the draft to line C D, forming elbow line (4).

7. Draw a line from elbow (3), to line A B, the length of the third measure, from elbow to side form of waist (see 3, 5 on diagram), 11 inches.

8. To form the under of sleeve. Begin by making a dot on wrist line, one-and-a-half inches from (1), make dot (6).

Draw line L the length of second measure, $9\frac{1}{2}$ inches. This elbow dot will always come above the elbow line, and must be two inches inside of first outline (see dotted line 7).

10. Place square end on elbow line and draw line M, joining line L. It is to be the length of third measure, 11 inches (8), and, before completing the draft, take a tape line or rule and measure the back outlines. As these lines are joined in making the sleeve, it is readily seen that they must be of equal length, and, if a mistake occurs, it is usually in drafting the under. Practice until the draft is perfect without correcting.

11. Next draw line I the length of fourth sleeve measure, 9 inches, and shape by placing point of rule at elbow, holding rule face down, and drawing curved line from 4 to 9.

12. The dots on line A C are formed by first dotting in the middle of line A C, then dot two inches from this

towards the back outline (A), (see lesson 3, clause 7), make a curved line (J), by placing Point at the rear dot and drawing on dart-rule, 9 line to 8. Turn rule over and draw along dart-rule, from middle dot on sleeve top to (9) line K.

Draw curve line (N), by placing point at 9, and draw by the dart-rule to 8.

LESSON VII.

DRAFTING CHILDREN'S GARMENTS.

1. The draft for misses' and children's waists is the same as described in lesson 3. The measures transferred to the waist make the changes. The difference between waist and bust measures in young children is little or nothing, and no darts can be taken up. The small space for them will be needed to make the garment loose.

2. When the waist is to be open in front, allow a lap of *one-half inch* straight down the front.

 Always measure more loosely for children's clothes.

3. When the garment is open in the back, cut the front double, the line A B to be the centre of front. Allow one-half inch lap upon back, and allow for hems.

4. Children's waist, backs should be divided in two pieces instead of three. To be sure of curving the round seam correctly, draft in three parts as usual, then cut or mark down the centre of side form its entire length, from armseye to waist, leaving the back in two parts, omitting lines H and I.

5. To cut basques, cloaks, etc., for children, it is much more simple to cut no plaits in the back, or postillion. It gives a short-waisted look to the garment, and is otherwise unbecoming. There are many other ways of trimming the back, such as lapels, braid, buttons, and sashes.

6. Boys' coats are drafted according to the measure above the waist line. The hip measure is often less than the waist measure, so the garment must slant out from waist line downwards, no hip measure being used. To draw this line (waist to hips) place B on rule at waist dot, and draw along the dart-rule side.

7. Back of boys' coat, draft the outlines same as usual, above the waist. To draw under-arm line, place B on rule at waist dot, and draw straight down to bottom of coat, divide the back in two parts. *The centre back the wider.* If the coat is to be wadded, allow one inch larger when drafting.

8. Gentlemen's dressing gowns are cut to measure, above the waist, and the same rule should be followed below the waist as for boy's coat.

9. Sleeves for gentlemen or boys are drafted inside the diagram, instead of two inches outside of diagram at the wrist, and two inches inside diagram at the elbow. The line from elbow to side form, will be the line A B. Commence by placing fig. 2 on diagram two inches above angle D, then place Square End at 2, and measure from five to six inches as desired, measure wrist to elbow, from (1) to the line A B, and complete the draft in a like manner; the line P T is omitted.

GIRL'S SLEEVE.

10. Draw diagram width of bust measure and length of arm. Place rule on line C D, and instead of placing stars on angle D, place the first inch mark there, and dot at fig. 1, on rule. This gives a square of one-inch outside the diagram. Place corner of rule at this dot, (1), and draw wrist line four inches. Line P T is drawn ONE-INCH inside line A B, draw the outlines of upper according to the measures, as usual.

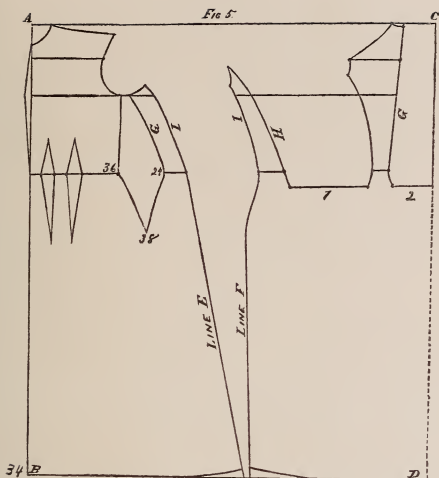
11. For under side of sleeve, mark one inch inside of back outline, on wrist line, (6), and dot for elbow one inch inside line P T. The measures are drafted as usual.

NOTE.—No seams are allowed for in any of our sleeve drafts.

Practice drafting from the following measures :

Neck, 11; back, $13\frac{1}{2}$; front, $11\frac{1}{2}$; under-arm, $7\frac{1}{4}$; hips, 28; waist, 22; bust, 26; chest, $9\frac{1}{2}$; shoulder, 10.

Sleeve.—Length, $20\frac{1}{2}$; wrist to elbow, $8\frac{1}{2}$; elbow to side form, 10; elbow to arm-pit, 9.



LESSON VIII.

TO DRAFT POLONAISE OR WRAPPER.

1. The cut shows a plain wrapper with pleated or pos-tillion back, and is the model for cutting both wrappers and polonaise, and long, tight-fitting cloaks, as well as basques.

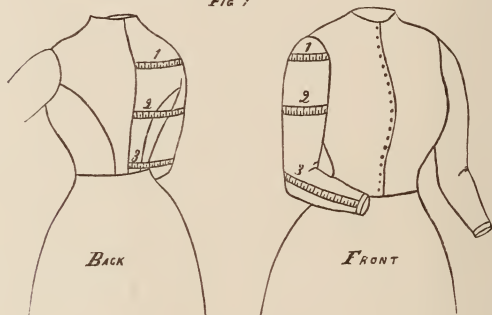
2. Cut linings as for basque, lessons 3 and 4, but before cutting the skirt lining, if any is used, or cutting the goods, join the under-arm piece of back to the under-arm seam of front, at hip line, (38), forming a deep under-arm dart. The goods is left entire below the extremity of this dart. Cut line E straight out to bottom of skirt, (B D), below hip line, leaving line B D 24 inches wide.

In cutting polonaise front, leave the goods square and whole below hip line (instead of cutting on line E), until the plaits and draping have been adjusted.

Back of wrapper, from hip line, F, follow the outline of basque lining to hip line, then leave the edge straight to bottom of skirt. Pleats are cut in the centre between the backs, and between backs and side forms, making three groups of pleats. So arrange the linings on the goods, that line F will be the selvedge, and line C D will be the fold (in 54 inch goods); leave more cloth for pleats between side and back than in the centre of back, and the latter, *when unfolded*, will be the larger. (See diagram 1, 2.)

The waist, bust, and hip lines in joining these garments **MUST** be on a line, as shown in the cut.

Fig 7

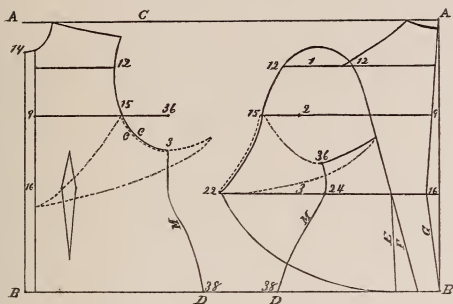


LESSON IX.

DOLMAN WRAP.

1. Measurements.—Take waist measures as for basque, but a trifle looser, or add one-half inch to neck and round measures. Sleeve measures are taken as shown in fig. 7. 1st. From centre back seam to chest, passing the tape around the highest part of arm (1 on diagram). 2d. From centre back seam around arm to bust (2 on diagram). 3d. From centre back seam around the elbow to wrist. The hand should be resting at front of waist in taking each of these measures. Do not take sleeve measure tight.

Fig 8



TO DRAFT THE FRONT OF DOLMAN.

Draft as for basque until reaching the armseye, which omit, then make a dot three inches above waist line on under-arm line, and draw curved line from chest line (12), to this dot; this line is readily curved by making a "sweep," it being only a plain semi-circle, cutting off three inches of bust line. (See 36.) If desired to have wrap tight-fitting, draft for darts as usual, or take up the entire dart space in one dart; allow a lap of one inch on fronts.

TO DRAFT THE BACK OF DOLMAN.

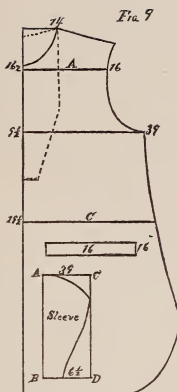
3. The back and sleeve are drafted in one piece, but are cut apart before cutting linings. Form lines A B C, as for basque. Make no changes in drafting until reaching armseye, which omit, and dot at three inches above waist dot (24), draw straight line across (see 36), to the back seam of sleeve. Form hip line as for basque.

4. Place point of rule at shoulder width (12), and draw a line along dart rule to waist line, leaving space for centre back at waist, from two to three inches, in proportion to the waist size. Draw line E, as for skirt of basque, thus completing the centre back.

5. Complete the under-arm piece by drawing line F, parallel with line G; the under-arm piece cannot be cut out from the paper, but can easily be traced by placing

under the draft a piece of plain paper, and tracing the outlines from (3), line M, line D B, and line F, with tracing wheel.

6. The sleeve measures, 1, 2, 3, are drafted by inch scale on rule, measuring from centre back seam, on draft, along shoulder, bust, and waist lines to the measures, 12, 15, 22. (See diagram.) In the middle of sleeve top make a dot, and one inch above this dot begin a curving line from 12 to 12. Complete this line from dot to dot, curving outward from 12 to 15, and curving in from 15 to 22; the curves are made on the dart rule. First draw a straight line, then curve one inch deep in the middle between 15 and 22. From 22 draw line to bottom of dolman, meeting line E, which completes the outline. The under-arm piece is cut, from (15) to (22) to fit the sleeve, and line C to fit the armscye, the remaining line being drawn between the extremities of the other lines. It is readily cut by studying the lines on front, which show how the seams, C C, join together. A simple way to cut this piece without drafting is to pin a piece of paper of sufficient size to the front, cut from bust line to under-arm seam, (3), then enough longer to sew across top of under-arm piece, then match the point, (15), to bust line of sleeve, and cut from 15 to 22; cut between the extremities of these lines and a piece will be formed which will fit perfectly. When cutting various shapes of wraps it is well to be guided by new patterns, but the plain dolman shape should be first drafted to be sure of the fit of the garment. In many light wraps the under-arm piece is omitted, and the remaining seams joined, forming a cape-like garment, and a tape is sewn at waist in back, to adjust it. Wrap cutting is very difficult, and it is always best for a beginner to learn on cheap lining by cutting for various measures. Nothing nice should be attempted until the lining has first been cut, basted and tried on.



LESSON X.

TO DRAFT GENTLEMAN'S SHIRT.

1. Measurements.—Collar size, back, front, under-arm, width of chest and of shoulders, size around the body close under the arms, and length from neck to hem.

2. Draft front from measures as for dress, but add two inches to the bust line for looseness; for boys' shirts add but one inch; use bust measure at waist line, draw curved line from bust line to hem, the garment growing gradually wider. (See fig. 9.) Use same shoulder as for dress.

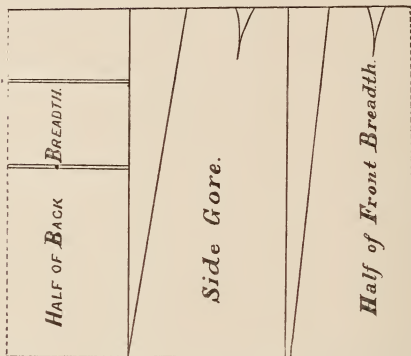
3. Draft back straight down centre, and obtain shoulder same as in the front. Add three inches to the bust line and shape the garment from bust line as in the front; curve out back of neck one inch.

4. For neck band take straight piece of paper, one inch in width, the length of the collar, curve middle out a trifle. *Do not* stretch the neck of the shirt in sewing on the band.

5. Form diagram for one-half the sleeve, the length of the sleeve measure and width of the bust size on the rule; make wrist $6\frac{1}{2}$ inches on line B D (for boy's garment, $5\frac{1}{2}$), draw a line from $6\frac{1}{2}$ to line C D, three inches

below the angle C. Draw curved line from A to this point, for top. The neck band when finished and buttoned, should measure half an inch less than the collar size.

FIG. 10.



LESSON XI.

PLAIN FOUNDATION SKIRT.

1. Take the waist measure and the length measure in front and back, from belt to floor; the skirt when completed should measure two and one-half inches from the floor in front.

2. The length in the back varies with the fashions, but for walking skirt is usually cut short enough to clear the floor.

3. Two and one-fourth yards around the bottom is the accepted width, and is composed of one front and two side gores, and one straight breadth in the back.

4. First cut the back breadth the length from belt to floor—this is long enough to allow for bustle steels, and making, if the skirt is to be of moderate length (see diagram). The back breadth is to be 24 inches wide.

5. Cut side gores from one breadth, cut same length as back, divide the breadth diagonally, leaving the top of gores 8 inches, and the lower edge 16 inches.

6. Cut front breadth one and one-half inches shorter than the measure from belt to floor, 24 inches wide at the bottom edge, and 16 inches wide at the top. To fit the figure perfectly, it is best to try the skirt on before joining it to the band and fitting it by means of darts at the top of front and sides, but these darts can be sewed, and, by fulling the skirt some, can be made very nicely without fitting. The most of the difficulty in hanging dress-skirts is caused by sewing them to the band too plainly.

7. The rule for placing the seams at the band is as follows, for medium size waists: From centre front place first seam $5\frac{1}{2}$ inches, second seam, $4\frac{1}{2}$ inches from the first, and the back gathered to fit the remainder of the belt.

8. Cut the waist band from fine, strong material—*lengthwise*—and allow three inches more than waist measure, for making and lap.

9. Baste the skirt carefully, begin at the top, and do not stretch the bias edges of gores, trim even around the bottom, measuring with tape line, and if bustle or steels are to be worn, the sides are the only parts to be trimmed, that is, they must be even with both back and front. Another idea is to cut the bottom of skirt straight around, and round up the top of back breadth two or three inches to allow for steels.

LESSON XII.

CUTTING THE LININGS OF BASQUE.

1. Having drafted the pattern, prepare to cut the linings; place the silesia, doubled lengthwise as it is purchased, upon a long smooth table, pin the selvages together and pin on the pattern of front, leaving a hem, and placing the hip line of pattern next the end of lining.

NOTE.—Do not cut linings crosswise of the cloth, as it will not make a good shoulder. Pin the pattern on in several places, cut around the edges, ALLOWING FOR SEAMS, half an inch at shoulders, and one inch at underarms.

2. Lay aside the front. Do not remove the pattern. Place the centre backs on the cloth cut away from the

front, the neck of pattern at the wide end of silesia. Be sure the waist line on pattern is even with the grain of the lining, the centre back seam cut *SLANTING*, just as the pattern is drafted, 3. It is a common fault to place the back seam even with the selvedge, which destroys the shape entirely. To make sure of being right, it is best not to cut away the straight line in the draft, line A B, but leave it and place it straight on the edge of linings; allow half-inch seams on all seams; cut the back out and lay it aside.

3. From the remaining goods cut the sleeve linings, keeping the elbow line square with the selvedge; allow seams on both upper and under. The underside of sleeve is to be traced from the pattern, or, after cutting the uppers, the under pattern can be cut out.

4. From the remaining pieces of lining cut the round forms, and the under-arm pieces. Keep the waist lines straight on the goods. This is of the utmost importance, *do not neglect it*. The waist, when done, is to be perfectly straight at the waist line, and if it is not cut square and true in every part, this will be impossible. 4. Allow seams on the forms one-half inch deep, and one inch deep at underarm.

5. If convenient use a tracing wheel to mark around the edges of patterns. The seams *must* be traced, it is absolutely demanded. The sewing machine traces very nicely, the stitch being lengthened.

6. Trace around the edge of all the patterns, and at waist line. It is not needful to allow seams around arm-seye or neck. The tracing completed, remove the pattern, and if any wadding is to be used, baste it on the linings.

CUTTING DRESS GOODS.

It is very necessary to first observe, before cutting into the goods, whether it has a right or a wrong side, whether an up or down, and whether there are plaids, figures or stripes to be matched. If the goods has a nap or pile, all parts of the garment must be cut the same way of the goods.

In cutting plaids take one particular thread to be the waist line, and use this same thread in every piece of the waist, and the plaids will match perfectly all around. It

will not, however, make the side forms match the backs lengthwise of the plaid, so great care must be exercised in cutting these forms. The better plan is to cut the centre backs first, then baste in one side form lining. Take a scrap of the plaid and fit the plaids together, use this as a guide in covering the side forms.

BASTING.

The system almost compels accuracy in the foregoing lessons, but has no power over the joining of the garment together. We can tell you to "baste carefully on the tracings as a guide to sew by," but many pay no attention to it, they baste carelessly, or not at all, or where they like, and although urged to "join all parts at waist line," they do nothing of the kind. To such dress-makers we can only say, You do not give the System a fair test. You injure its reputation and your own, and if you would only baste carefully, and teach your sewing girls to do the same, you would need to do no refitting, and could do double the work. To those who know the value of the System, and are willing to follow its teachings to the end, we extend our heartfelt thanks.

1. Fold a hem on the left front, baste in small stitches near the edge. On right, or button side, fold the lining hem in between outside and lining, turn in *half* the hem of goods, leaving a screen for under the button holes; stitch or hem close to edge of the lining. At waist line, the hems must be cut across nearly to the fold to allow them to fold smoothly.

2. Double the darts and baste in fine, even stitches, join the forms to the centre backs, basting fine, and keeping the waist lines exactly together.

3. Baste the shoulders last, and before joining them, stretch them ALL YOU CAN. There is no danger of stretching them too much. Few ever stretch them enough. Run a thread along the back shoulder, and full it at least one-half an inch; in elderly forms it is often needful to full the back shoulder an inch. Commence at the neck to baste the shoulders, first pin the seams even, then baste. It is not expected these seams will come out even at armseye, the front is to be trimmed to fit the back. All the other seams should fit together perfectly. Cut the under-arm seams across at waist line,

nearly to the tracings, to allow them to fit over the hip.

4. Make hook-and-eye pieces shaped like the *French front*, and baste them in front dart seams, let the waist lap one-fourth of an inch when these are hooked.

5. Baste the sleeves on the tracings, run a thread around the top and draw slightly.

6. Join the sleeve to armseye, the under seam placed one and one-half inches above the under-arm seam of waist, and the back sleeve seam joining the round form seam in back. All the fullness at top is between the shoulder seam and the chest line on waist; double the armseye of front, mark the middle, and move all gathers above this mark. If in trying on, the waist is a very little loose or tight, do not rip out your bastings, nor try to change it, but stitch just outside or inside the seams, scarcely making any change, and it will result in the right size. There are eleven seams, and if a change of one-sixteenth of an inch were left out or taken up on them all, it would result in the difference of nearly an inch in the size. So do not stitch without giving the matter some consideration. When the seams are not to be pressed open they should all turn forward except the darts.

If the dress, in trying on, is too long in the back, it will not drop below the waist line, but will be full and high in the back of the neck, and the shoulder will need to be taken in. Trim the armseye on top of arm enough to make the sleeve set well; a long shoulder is not to be tolerated.

Where the right hip is higher than the left, it will be found necessary to clip the threads and let the seam out on the higher hip. If the measure is taken under both arms, and one hip is found to be the higher, measure with rule from armseye, and form hip-line from the length obtained. This hip curve will extend above the waist line. If the waist needs trimming out in the neck, the length of front was too long.

Variations.—1. When the under-arm length is 7 or less, make the darts one-half inch higher.

2. Darts may be farther from line A B than the rule without changing the fit, the darts may also be further apart.

3. Lines H and I may be omitted, and one line drawn between them, giving the French back.

4. The amount of goods to be taken out in two darts may be all taken out in one dart if desired; the dart, in this case, will look better to be seamed up one-half an inch higher.

5. If a lady has a very full bust, a line may be drawn below waist line in front, from one inch below 16, to the waist dot, (24,) and the darts drawn from this line, making waist longer in front (see dotted line on diagram.)

6. For a loose-fitting garment leave out the darts.

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